

### **STATEMENT OF LEGAL AND FACTUAL BASIS**

Philip Morris USA, Inc  
Richmond, Virginia  
Permit No. PRO-50080;50082

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Philip Morris Companies, Inc. has applied for a Title V Operating Permit for its Richmond, Virginia facility. The Department has reviewed the application and has prepared a Title V Operating Permit.

Engineer/Permit Contact: \_\_\_\_\_ Date:

Air Permit Manager:

## **FACILITY INFORMATION**

### **Permittee**

Philip Morris USA Inc.  
P.O. Box 26603  
Richmond, Va. 23261

### **Facility**

Philip Morris USA Inc. – Blended Leaf Complex  
2325 Maury Street  
Richmond, VA 23234

### **Responsible Official**

Mr. Jesse L. Calloway  
Vice President and General Manager  
(804) 274-6207

### **Contact person**

Ms. Patricia P. Bruce  
Staff Engineer  
(804) 274-3649

**County-Plant Identification Numbers:** 760-0052 (Reg. No. 50080) (Blended Leaf Plant)  
760-0009 (Reg. No. 50082) (Leaf Processing Facility)

**Facility Description:** NAICS 312229.

The Philip Morris USA, Blended Leaf Complex has four facilities: the Blended Leaf Plant (Reg. No. 50080), the Leaf Processing Facility (LPF, Reg. No. 50082), the Tobacco Quality Assurance Facility (not registered) and the Maury Street Warehouses (not registered). The Blended Leaf Plant (BL) mixes tobacco stems and tobacco dust to make sheets of tobacco that are later shredded for use in cigarettes. The LPF currently houses the Tobacco Flavoring and Packaging Process, Research & Development Process A and Central Housekeeping Vacuum System. There are three boilers at the Leaf Processing Facility that are subject to 40 CFR 60 Subpart Dc.

The Blended Leaf Complex, which is located in an attainment area, is a major stationary source because the Complex has the potential to emit more than 100 tons per year of a criteria pollutant. The Complex has four active new source review permits. The Blended Leaf Plant (50080) has a 4/13/04 permit to emit 118.7 tons per year of NO<sub>x</sub>, 266.8 tons per year of CO and 525.6 tons per year of VOC. The Leaf Process Facility (50082) has a November 16, 2007 permit to limit PM to 8.0 tons per year, PM10 to 4.4 tons per year, and VOC to 14.9 tons per year. The Leaf Process Facility (50082) has a 05/19/03 permit to restrict boiler emissions to 240.3 tons per year of SO<sub>2</sub>, to 67.7 tons per year of NO<sub>x</sub> and 51.3 tons per year of CO. The LPF has a 12/01/95 permit to restrict the operating hours of two emergency generators to 500 hours per year each. The BL Plant also has a 12/01/95 permit to restrict the operating hour of two emergency generators to 500 hours per year each.

The Blended Leaf Complex has a 02/27/96 Consent Agreement that establishes a Reasonably Available Control Technology (RACT) standard for the Blended Leaf Facility (50080) for the control of volatile organic compounds (VOCs). The Consent Agreement in Section D, Number 5 states the 1991 uncontrolled VOC emissions from the facility are 238.4 tons per year. In Section D, Number 6, the Consent Agreement states, "Since it is not cost effective to control VOC emissions from any of the tobacco processing operations at the affected facility, RACT for the entire facility is determined to be no control."

When most of the new source review permits were issued, the Richmond area was a moderate nonattainment for ozone. After many years as an attainment area for all criteria pollutants, on April 15, 2004 the Richmond area became a nonattainment area for NO<sub>x</sub> and VOC and remained an attainment area for CO, PM10 and SO<sub>2</sub>. In June 2007, EPA designated the Richmond area as an attainment area for ozone.

## **COMPLIANCE STATUS**

The facility is inspected on an annual basis and has been in compliance. Last inspection was conducted on November 15, 2006.

## EMISSION UNIT IDENTIFICATION

The Emission Units and equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Control Device (PCD) Desc.	PCD ID	Pollutant Controlled	Applicable Permit Date
<b>Fuel Burning Equipment at LPF (50082)</b>							
BO0401	AE01	Kewanee H3S-400-G02 package boiler (August 8 1996)	16.8 mmBtu/hr	None			May 19, 2003 (NSPS Dc)
BO0101	AE01	B & W FM 10-52 boiler (August 8 1996)	52.7 mmBtu/hr	None			May 19, 2003 (NSPS Dc)
BO0201	AE01	B & W FM 10-70 boiler (August 8 1996)	70.0 mmBtu/hr	None			May 19, 2003 (NSPS Dc)
<b>Additional Equipment at LPF (50082)</b>							
FPP		Flavoring and Packaging Process – Tobacco flavoring, blending, aging, cooling and packaging process equipment (2007)	0.69 LPFP units/hr dry weight basis				November 16, 2007
Other VOC	Fugitive	Other VOC additive processing (2007)	0.13 LPFP units				November 16, 2007
R&D A	AE-R4 for fugitive VOC (other stacks vent PM inside bldg.)	Research and Development Process A Tobacco preparation, storage, processing and packaging. June 28, 2005	1650 lb/hr dry weight basis	Fabric filter Cartridge filter Fabric filter VOC limit	BHRD01 BHRD02 BHRD03	PM  VOC	November 16, 2007
		Pilot Tobacco Flavoring and Packing Process	500 lbs per batch / 166.4 Tons per Year	None			November 16, 2007
CN-01-02 and CN-01-01	AE-16	Central Housekeeping Vacuum System March 21, 1997	40 lbs/hr based on material recovered from the fabric filter	Fabric filter	BH0201	PM	November 16, 2007
<b>Equipment at BL – Product forming and drying lines (50080)</b>							
GR0201, GR0301	AE-47 AE-48	Two tobacco grinders	combined maximum rated capacity of 39.09 tobacco processing A units/hr	Two fabric filters	BH0801 BH0901	PM	April 13, 2004

<b>Emission Unit ID</b>	<b>Stack ID</b>	<b>Emission Unit Description</b>	<b>Size/Rated Capacity*</b>	<b>Control Device (PCD) Desc.</b>	<b>PCD ID</b>	<b>Pollutant Controlled</b>	<b>Applicable Permit Date</b>
DT0101, DT0301 and DT0501	AE-33, AE-16, AE-19, AE-23, AE-24, AE-32, AE-15, AE-18, AE-22, AE-12, AE-31, AE-11, AE-14, AE-17, AE-21	Three main tobacco dryers	combined maximum rated throughput capacity of 22.61 tobacco processing A units/hr and a combined maximum rated heat input capacity of 87.3 mm BTUs/hr	None			April 13, 2004
DT0201, DT0401 and DT0601	AE09, AE-06, AE-39, AE-13, AE-05, AE-38, AE-08, AE-03, AE-37	Three "C" dryers	combined maximum rated throughput capacity of 22.61 tobacco processing A units/hr and a combined maximum rated heat input capacity of 13.2 mmBTUs/hr	None			April 13, 2004

## EMISSIONS INVENTORY

A copy of the 2002 annual emission update is available. Emissions are summarized in the following tables.

The control equipment at this facility consists of the following:

Stack No./ Emission Unit No.	Control Equipment Description	Manufacturer and Date of Construction	Size/Rated Capacity	Pollutant
AE-47 / GR0201	Filter - Baghouse	Sly Pactecon	99%	PM, PM10
AE-48 / GR0301	Filter - Baghouse	Sly Pactecon	99%	PM, PM10
AE-40 / MT0101 MT0301, MT0302 TK1101, TK1102, TK1201 to TK1206 TK1301, TK1401 TK0501, TK1001	Spray Box	Custom – Built All the items listed to the left are included on the insignificant activities list.	Unknown	Odor
AE-16 / CN0102	Filter - Baghouse	Hoffman	99%	PM, PM10

## EMISSIONS INVENTORY

A copy of the 2002 annual emission update is available. Emissions are summarized in the following tables.

2002 Actual Emissions

	2002 Criteria Pollutant Emission in Tons/Year				
Facility	VOC	CO	SO <sub>2</sub>	PM <sub>10</sub>	NO <sub>x</sub>
Blended Leaf (50082)	188.2	123.3	21.7	3.4	53.3
Leaf Processing (50080)	21	36.2	17.6	7.6	57.6
Total	209.2	159.5	39.3	11	110.9

- Estimated Allocation.

2002 Facility Hazardous Air Pollutant Emissions

Emission Unit	Pollutant (Phosphine)	Pollutant (Hexane)
Leaf Processing (50080)	0.38	0
Blended Leaf (50082)	0	0.68

## **EMISSION UNIT APPLICABLE REQUIREMENTS -**

The applicable requirements for limitations, monitoring, record-keeping, testing and reporting are listed in the Title V and are found in the existing new source review permits. The Title V does contain periodic monitoring requirements for the presence of visible emissions from the boiler stack (III, Fuel Burning Equipment Requirements, B. Monitoring in the Title V permit) and from the tobacco grinder fabric filter stacks (V. Process Equipment Requirements - Blended Leaf; B. Monitoring in the Title V permit).

## **GENERAL CONDITIONS**

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

### **Comments on General Conditions**

#### **B. Permit Expiration**

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.1-20.01:2 and §10.1-1185 of the *Code of Virginia*, and the "Department of Environmental Quality Agency Policy Statement NO. 3-2001."

This general condition cites the entire Article that follows:

Article 1 (9 VAC 5-80-50 et seq.), Part II of 9 VAC 5 Chapter 80. Federal Permits for Stationary Sources

This general condition cites the sections that follow:

9 VAC 5-80-80. "Application"

9 VAC 5-80-150. "Action on Permit Applications"

9 VAC 5-80-140. "Permit Shield"

#### **F. Failure/Malfunction Reporting**

Section 9 VAC 5-20-180 requires malfunction and excesses emissions reporting within 4 hours. Section 9 VAC 5-80-250 also requires malfunction reporting; however, reporting is required within 2 days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to this section including Title 5 facilities. Section 9 VAC 5-80-250 is from the Title 5 regulations. Title 5 facilities are subject to both Sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within 4 day time business hours of the malfunction.

#### **J. Permit Modification**

This general condition cites the sections that follow:

9 VAC 5-80-50. Applicability, Federal Operating Permit For Stationary Sources.

9 VAC 5-80-190. Changes to Permits

9 VAC 5-80-260. Enforcement.

9 VAC 5-80-1100. Applicability, Permits For New and Modified Stationary Sources.

9 VAC 5-80-1790. Applicability, Permits For Major Stationary Sources and Modifications Located in Prevention of Significant Deterioration Areas.

9 VAC 5-80-2000. Applicability, Permits For Major Stationary Sources and Major Modifications Locating in Nonattainment Areas.

#### **U. Malfunction as an Affirmative Defense**

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in section 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on general condition F.

This general condition cites the sections that follow:

9 VAC 5-80-110. Permit Content

9 VAC 5-20-180. Facility and Control Equipment Maintenance or Malfunction

#### **Y. Asbestos Requirements**

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

This general condition contains a citation from the Code of Federal Regulations that follow:

40 CFR 61.145, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to demolition and renovation.

40 CFR 61.148, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to insulating materials.

40 CFR 61.150, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to waste disposal.

#### **STATE ONLY APPLICABLE REQUIREMENTS**

The following Virginia Administrative Codes have specific requirements only enforceable by the State and have been identified as applicable by the applicant:

Odor (9 VAC 5 Chapter 40, Article 2)

State toxics rule (9 VAC 5 Chapter 60)

(9 VAC 5-80-110N and 9 VAC 5-80-300)

#### **FUTURE APPLICABLE REQUIREMENTS**

The facility does not have any future applicable requirements.

#### **INAPPLICABLE REQUIREMENTS**

The facility does not have any inapplicable requirements.

#### **COMPLIANCE PLAN**

There is no compliance plan.

#### **INSIGNIFICANT EMISSION UNITS**

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Facility	Emission Unit No.	Emission Unit Description	Citation	Pollutant Emitted	Rated Capacity
011	EG-02-01	Emergency Generator (Diesel)	5-80-720 C	NO <sub>x</sub> , SO <sub>2</sub> , VOC, CO, PM, PM <sub>10</sub>	75 KW
011	TK-01-01	Diesel Gen. Supply Tank	5-80-720 B	VOC	N/A
017	CN-01-01	Housekeeping Vacuum	5-80-720 B	PM, PM <sub>10</sub>	N/A
017	Various	Flavor Tanks	5-80-720 B	VOC, PM, PM <sub>10</sub> , Odor	N/A
017	FS-01-01 to FS-06-01	Blending Dust Collection System	5-80-720 B	PM, PM <sub>10</sub>	N/A
017	TK-18-01	Storage Tank	5-80-720 B	VOC	N/A
017	TK-17-01	Storage Tank	5-80-720 B	VOC	N/A
017	TK-20-01	Storage Tank	5-80-720 B	VOC	N/A
017	TK-20-02	Storage Tank	5-80-720 B	VOC	N/A
017	TK-19-01	Storage Tank	5-80-720 B	VOC	N/A
017	TK-16-01	Storage Tank	5-80-720 B	VOC	N/A
017	MT-01-01	Mixing Tank	5-80-720 B	VOC, Odor	N/A
017	TK-10-01, TK-11-01, TK-11-02	Solution Tanks (3)	5-80-720 B	VOC, Odor	N/A
017	MT-03-01, MT-03-02	Mixing Tanks (2)	5-80-720 B	VOC, Odor	N/A
017	TK-12-01 to TK-12-06	Aging Tanks (6)	5-80-720 B	VOC, Odor	N/A
017	TK-13-01, TK-14-01	Surge Tanks (2)	5-80-720 B	VOC, Odor	N/A
017	EG-01-01	Emergency Generator (Diesel)	5-80-720 C	NO <sub>x</sub> , SO <sub>2</sub> , VOC, CO, PM, PM <sub>10</sub>	225 KW
017	TK-24-01	Diesel Gen. Supply Tank	5-80-720 B	VOC	N/A
017	TK-29-01	Solution Tank	5-80-720 B	VOC	N/A
017	DC-05-01	Dry Flavor Dumper Feeder	5-80-720 B	PM, PM <sub>10</sub>	N/A
017	TP-10-01	Dry Flavor Pneumatic Transfer System	5-80-720 B	PM, PM <sub>10</sub>	N/A
017	BX-03-01, FS-09-01	Dry Flavor Hopper & LIW Feeder	5-80-720 B	PM, PM <sub>10</sub>	N/A
017	TP-11-01	Tobacco Pneumatic Transfer System	5-80-720 B	PM, PM <sub>10</sub>	N/A
017	TK-25-01	Tobacco Surge Tank	5-80-720 B	PM, PM <sub>10</sub>	N/A
017	TP-12-01	Tobacco Pneumatic Transfer System	5-80-720 B	PM, PM <sub>10</sub>	N/A
017	TK-01-01 to TK-01-05	Tobacco Storage (5) Tanks	5-80-720 B	PM, PM <sub>10</sub>	N/A
017	TP-13-01	Tobacco Pneumatic Transfer System	5-80-720 B	PM, PM <sub>10</sub>	N/A
017	BX-02-01, FS-08-01	Tobacco Hopper & LIW Feeder	5-80-720 B	PM, PM <sub>10</sub>	N/A
017	TP-14-01	Tobacco Pneumatic Transfer System	5-80-720 B	PM, PM <sub>10</sub>	N/A
017	TK-27-01	Tobacco Surge Tank	5-80-720 B	PM, PM <sub>10</sub>	N/A
017	TP-15-01	Tobacco Pneumatic Transfer System	5-80-720 B	PM, PM <sub>10</sub>	N/A
017	TK-04-01 to TK-04-04	Tobacco Storage (4) Tanks	5-80-720 B	PM, PM <sub>10</sub>	N/A
017	TP-16-01	Tobacco Pneumatic Transfer System	5-80-720 B	PM, PM <sub>10</sub>	N/A
017	BX-01-01 FS-07-01	Tobacco Hopper & LIW Feeder	5-80-720 B	PM, PM <sub>10</sub>	N/A
017	TP-17-01	Tobacco Pneumatic Transfer System	5-80-720 B	PM, PM <sub>10</sub>	N/A
017	TK-26-01	Tobacco Surge Tank	5-80-720 B	PM, PM <sub>10</sub>	N/A
017	PP-01-01, PP-01-02, VC-02-01, CO-01-01	Packing Dust Collection System	5-80-720 B	PM, PM <sub>10</sub>	N/A
017	CW-A1-01	Natural Gas Hot Water Cleaning System	5-80-720 C	NO <sub>x</sub> , SO <sub>2</sub> , VOC, CO	300,000 Btu/hr



Facility	Emission Unit No.	Emission Unit Description	Citation	Pollutant Emitted	Rated Capacity
021	TK-01-01	No.2 Fuel Oil Tank	5-80-720 B	VOC	N/A
021	TK-01-02	No.2 Fuel Oil Tank	5-80-720 B	VOC	N/A
021	EG-01-01	Emergency Generator (Diesel)	5-80-720 C	NOx, SO <sub>2</sub> , VOC, CO, PM, PM <sub>10</sub>	76.3 KW
021	EG-02-01	Emergency Generator (Diesel)	5-80-720 C	NOx, SO <sub>2</sub> , VOC, CO, PM, PM <sub>10</sub>	125 KW
021	TK-01-01	Diesel Gen. Storage Tank	5-80-720 B	VOC	N/A
021	TK-05-01	Diesel Gen. Supply Tank	5-80-720 B	VOC	N/A
021	TK-04-01	Diesel Gen. Supply Tank	5-80-720 B	VOC	N/A
104	FU-01-01	Office Furnace (Natural Gas)	5-80-720 C	NOx, SO <sub>2</sub> , CO, VOC	140,000 Btu/hr
104	PU-01-01	Emergency Fire Pump (Diesel)	5-80-720 C	NOx, SO <sub>2</sub> , VOC, CO, PM, PM <sub>10</sub>	87 hp
104	TK-01-01	Diesel Fire Pump Supply Tank	5-80-720 B	VOC	N/A
104	TK-02-01	Gasoline Vehicle Fueling Tank	5-80-720 B	VOC	N/A
104	Various	Tobacco Warehouses	5-80-720 B	HAP	N/A
Various	N/A	Shop Parts Washers	5-80-720 B	VOC	N/A
Various	N/A	Hydraulic Oil Tanks	5-80-720 B	VOC	N/A

<sup>1</sup>The citation criteria for insignificant activities are as follows:

9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application

9 VAC 5-80-720 B - Insignificant due to emission levels

9 VAC 5-80-720 C - Insignificant due to size or production rate

## CONFIDENTIAL INFORMATION

The source requested that the rated capacity and the throughput of certain units that were classified as confidential in the 04/13/04 Blended Leaf (50080) new source review permit remain classified as confidential in the Title V permit. This request caused a problem because EPA does not accept confidential information in Title V permit. To address this issue, DEQ published Appendix MM – Confidential Information Guidance to the NSR Permit Manual. The guidance states there are several methods for writing practically enforceable permits while protecting confidential information. The tools are aggregation, categorization, surrogate parameters and emissions monitoring or sampling. A surrogate parameter can be an alternative production unit that correlates with production or throughput and with emissions. In this case, DEQ used surrogate units to protect the following information: two tobacco grinders (GR0201, GR0301) – rated capacities and throughputs and three main dryers (DT0101, DT0301, DT0501) – rated capacities. In this manner, the Title V permit was written to be self-explanatory but without any confidential business information so that it is suitable for public review.

## PUBLIC PARTICIPATION

The public notice of the proposed permit was published in the Richmond Times Dispatch on December 23, 2007. The thirty-day comment period (9 VAC 5-80-270) expired on January 22, 2008. This permit was concurrently reviewed by the EPA until February 6, 2008. The Department of Environmental Quality received no comments.